



IFW/2621

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: Michael W. Marcellin, et al.

DOCKET NO.: 122170.00002US

SERIAL NO.: 10/534,620

CONFIRMATION NO. 7448

FILED: 05/11/2005

ART UNIT: 2621

TITLE: METHODS FOR DECODING CORRUPT JPE2000 CODESTREAMS

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Gavin J. Milczarek-Desai  
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CERTIFICATE OF TRANSMISSION

I hereby certify that on this 6 day of January, 2006 this Request for Correction of Filing Receipt is being transmitted via facsimile to the Office of Initial Patent Examination's Filing Receipt Corrections, Facsimile No. 703-746-9195.

By: Sara VanderVeen  
Sara VanderVeen

REQUEST FOR CORRECTION OF FILING RECEIPT

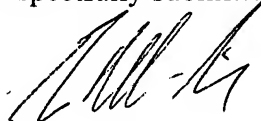
Dear Sir:

The Filing Receipt issued for the above-referenced application is incorrect. Please correct the Filing Receipt to include the third inventor, Zhenyu Wu.

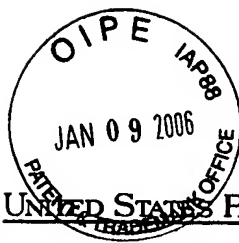
A marked copy of the Filing Receipt is provided with the appropriate change noted thereon, as requested. Support for this correction can be found in the Declaration that Zhenyu Wu signed and dated, a copy of which is enclosed. The Declaration was filed in parent application PCT/US2003/036213 and a copy of the Declaration was filed with the subject U.S. national stage application. Also enclosed is a copy of the first page of WO 2004/047010 A1, the published PCT application.

Thank you for your attention and cooperation.

Respectfully submitted,

  
Gavin J. Milczarek-Desai  
Reg. No. 45,801  
(520) 770-8716 phone; (520) 770-2235 fax

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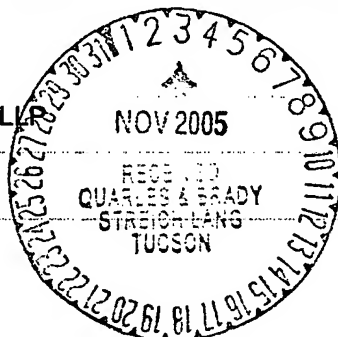
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10/534,620	05/11/2005	2621	925	122170.00002US	17	29	7

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CONFIRMATION NO. 7448

FILING RECEIPT



\*OC000000017348216\*

Date Mailed: 10/31/2005

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

## Applicant(s)

Michael W Marcellin, Tucson, AZ;  
Ali Bilgin, Tucson, AZ;  
Zhenyu Wu, Tucson, AZ

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Power of Attorney: The patent practitioners associated with Customer Number 34282.

## Domestic Priority data as claimed by applicant

This application is a 371 of PCT/US03/36213 11/15/2003  
which claims benefit of 60/426,830 11/15/2002

## Foreign Applications

Projected Publication Date: 02/02/2006

Non-Publication Request: No

Early Publication Request: No

\*\* SMALL ENTITY \*\*

## Title

Methods for decoding corrupt jpe2000 codestreams

PROCKETED  
MUE/VTUC

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382

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Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

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Box No. VIII (iv) **DECLARATION: INVENTORSHIP** (only for the purposes of the designation of the United States of America)  
*The declaration must conform to the following standardized wording provided for in Section 214; see Notes to Boxes Nos. VIII, VIII (i) to (v) (in general) and the specific Notes to Box No. VIII (iv). If this Box is not used, this sheet should not be included in the request.*

**Declaration of inventorship (Rules 4.17(iv) and 51bis.1(a)(iv))  
 for the purposes of the designation of the United States of America:**

I hereby declare that I believe I am the original, first and sole (if only one inventor is listed below) or joint (if more than one inventor is listed below) inventor of the subject matter which is claimed and for which a patent is sought.

This declaration is directed to the international application of which it forms a part (if filing declaration with application).

This declaration is directed to international application No. PCT/..... (if furnishing declaration pursuant to Rule 26ter).

I hereby declare that my residence, mailing address, and citizenship are as stated next to my name.

I hereby state that I have reviewed and understand the contents of the above-identified international application, including the claims of said application. I have identified in the request of said application, in compliance with PCT Rule 4.10, any claim to foreign priority, and I have identified below, under the heading "Prior Applications," by application number, country or Member of the World Trade Organization, day, month and year of filing, any application for a patent or inventor's certificate filed in a country other than the United States of America, including any PCT international application designating at least one country other than the United States of America, having a filing date before that of the application on which foreign priority is claimed.

Prior Applications: U.S. Provisional Application No. 60/426,830, filed 15 November 2002.....

I hereby acknowledge the duty to disclose information that is known by me to be material to patentability as defined by 37 C.F.R. § 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the PCT international filing date of the continuation-in-part application.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Name: ..... Michael W. Marcellin .....

Residence: ..... Tucson, Arizona .....  
 (city and either US state, if applicable, or country)

Mailing Address: ..... 6535 N. Camino de Michael .....  
 ..... Tucson, Arizona 85718 .....

Citizenship: ..... US .....

Inventor's Signature: ..... *Michael W. Marcellin* .....  
 (if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)

Date: ..... 11/13/03 .....  
 (of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the international application)

Name: ..... Ali Bilgin .....

Residence: ..... Tucson, Arizona .....  
 (city and either US state, if applicable, or country)

Mailing Address: ..... 1300 E. Ft. Lowell Rd., Apt. M-215 .....  
 ..... Tucson, Arizona 85719 .....

Citizenship: ..... Turkey .....

Inventor's Signature: ..... *Ali Bilgin* .....  
 (if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)

Date: ..... 11/10/2003 .....  
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☒ This declaration is continued on the following sheet, "Continuation of Box No. VIII (iv)".



**Continuation of Box No. VIII (i) to (v) DECLARATION**

*If the space is insufficient in any of Boxes Nos. VIII (i) to (v) to furnish all the information, including in the case where more than two inventors are to be named in Box No. VIII (iv), in such case, write "Continuation of Box No. VIII ..." (indicate the item number of the Box) and furnish the information in the same manner as required for the purposes of the Box in which the space was insufficient. If additional space is needed in respect of two or more declarations, a separate continuation box must be used for each such declaration. If this Box is not used, this sheet should not be included in the request.*

Continuation of Box No. VII(iv)

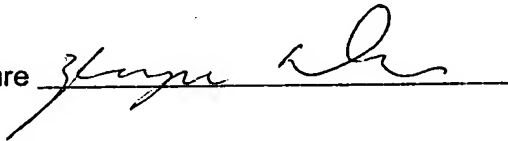
Name: Zhenyu Wu

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Tucson, Arizona 85719

Citizenship: People's Republic of China

Inventor's Signature



Date: Nov. 10, 2003

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(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
3 June 2004 (03.06.2004)

PCT

(10) International Publication Number  
**WO 2004/047010 A1**

(51) International Patent Classification<sup>7</sup>: **G06K 9/36, 9/40**

(21) International Application Number:  
PCT/US2003/036213

(22) International Filing Date:  
15 November 2003 (15.11.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/426,830 15 November 2002 (15.11.2002) US

(71) Applicant (for all designated States except US): **THE ARIZONA BOARD OF REGENTS on behalf of THE UNIVERSITY OF ARIZONA** [US/US]; 888 N. Euclid Avenue, Room 204, P.O. Box 210158, Tucson, AZ 85721-0158 (US).

(72) Inventors; and

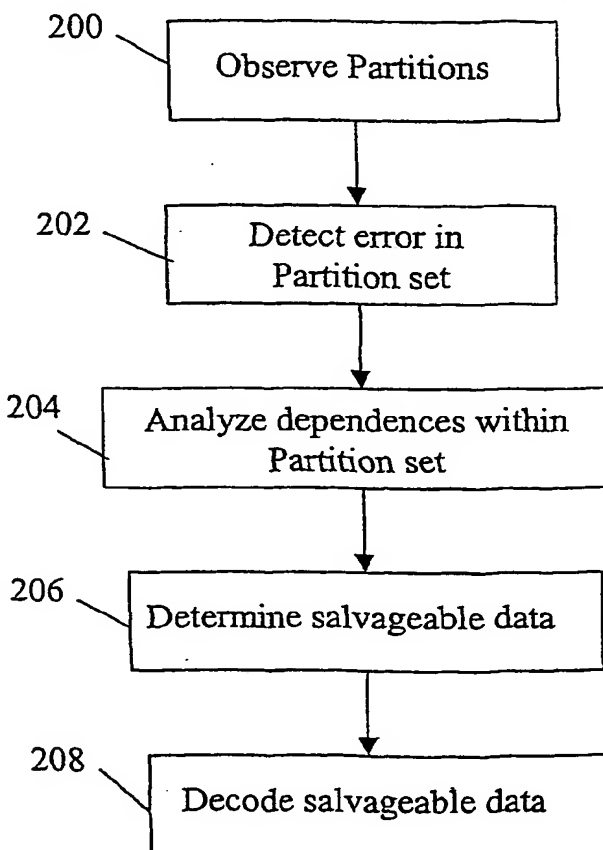
(75) Inventors/Applicants (for US only): **MARCELLIN, Michael, W.** [US/US]; 6535 N. Camino de Michael, Tucson, AZ 85718 (US). **BILGIN, Ali** [TR/US]; 1300 E. Ft. Lowell Rd., Apt. M-215, Tucson, AZ 85719 (US). **WU, Zhenyu** [CN/US]; 951 E. 10th Street, Apt. 22, Tucson, AZ 85719 (US).

(74) Agent: **MILCZAREK-DESAI, Gavin, J.**; Quarles & Brady Streich Lang, One South Church Avenue, Suite 1700, Tucson, AZ 85701-1621 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

[Continued on next page]

(54) Title: **METHODS FOR DECODING CORRUPT JPEG2000 CODESTREAMS**



(57) Abstract: The present invention provides a method for decoding corrupt codestreams for encoded digital imagery and video and, in particular, JPEG2000 codestreams with improved error resilience properties. The decoding techniques apply to a class of coding algorithms in which the data from underlying images are partitioned, typically to allow decoding of different spatial sections of the image, and the rules governing the dependencies within and perhaps between partitioned sets are known. Corrupt codestreams are decoded with improved image quality by observing the partitions imposed by the underlying algorithm (200), detecting an error in a partition set (202), analyzing the dependencies within and perhaps between the partitions (204), determining what sections of encoded data that follow the error in the partition set can be salvaged (206), and decoding those sections (208). Even though there might be errors in a particular partition, portions of that partition might still be completely or partially decodable, depending on certain modes or "switches" used during the creation of the codestream.

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WO 2004/047010 A1